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EXCHANGE



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THE FINANCE COMMISSION

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OF THE

CITY OF BOSTON

A REPORT ON THE

BUILDING DEPARTMENT OF THE
CITY OF BOSTON



CITY OF BOSTON
PRINTING DEPARTMENT

1914



Report, 1912.
THE FINANCE COMMISSION

OF THE
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CITY OF BOSTON
PRINTING DEPARTMENT
1912



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EXCHANGE



THE FINANCE COMMISSION

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A REPORT FOR THE

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legislation until after the occurrence of the building collapses of last year. Though strictly honest, and desirous of keeping his department free from demoralizing influences, he has not been active enough in hunting down rumors of graft which have been brought to his attention, nor has he dealt with his employees with sufficient severity to maintain the discipline required in a department upon which the safety of the public so largely depends. He might have secured the removal of certain employees who were a detriment to the department, if he had attempted it, but either because of the difficulty of removing employees who are under the protection of the civil service laws, or who might be protected by their political connections, he has not made the attempt in any case except one. In that case the removal was accomplished. In short, though he has done valuable work under the system he found in existence when he became head of the department, and has made some improvements in it, he has not shown as much initiative and vigor in originating and executing plans for improvement as the conditions required.

C. The Clerical Division.

The head of the clerical division is called the clerk of the department and receives a salary of \$2,500 a year. In 1878, at the age of twenty, he entered the department as a permit clerk, and in 1881 was appointed to his present position. His thirty-four years' experience in the department has made him familiar with its work and methods, and he has devoted considerable time to the study of the building laws. Besides having charge of the work of the clerical division, he personally prepares the statistical and other data for presentation in the department's annual reports, and assists the commissioner in preparing the cases that go to the Board of Appeal. Under his direction the office correspondence is attended to, the various papers and documents, which are required by law or by the existing

practice in the department, are filed and recorded, indexes are kept and notices are issued. In many respects the work is well done, but it is open to criticism in other respects. The commission's unfavorable criticism relates to the annual reports and to certain gaps in the records, both of which subjects are treated in other parts of this report.

D. The Plan Division.

This division receives and examines all applications, with the accompanying plans and drawings, for permits for the erection and alteration of buildings, the setting of boilers, engines, etc., and makes reports thereon to the Building Commissioner.

The head of the division, who is now about sixty-five years old, entered the Building Department in 1878, having had ten years' previous experience in an architect's office and five years' experience as an architect on his own account. In 1881 he was given charge of the plans filed with the department, and has since remained at the head of this division. His present title is superintendent of plans, and his salary is \$2,800 a year. He has three assistants, two rated as architects, and one as a draughtsman, appointed respectively in 1901, 1903 and 1911, the first two having had previous experience as architects, and the third having previously been a draughtsman in an architect's office. Each of the two former receives a salary of \$1,400 a year, and the latter \$1,300 a year.

The work of the division is not done in a perfunctory manner, as is shown by the fact that last year approval was refused on 1,247 out of a total of 6,141 plans filed, or more than one-fifth of the entire number. The work, however, is not done as well as it should be. There are marked differences in the abilities of the four members of the division, the head of the division being the best qualified by reason of his long experience. Yet the work is distributed in turns, generally without regard

to its difficulty, although the latest appointee is confined more to plans for second and third class buildings than are the older and more experienced officials. As a rule the superintendent of plans accepts the judgment of his subordinates, and the Building Commissioner accepts the judgment of the superintendent, so that permits may, and do, issue on the judgment of the least qualified. In the case of the Hanover street building which collapsed, causing several deaths, the superintendent did not examine the plan, but, relying on the judgment of the employee who did, he recommended the granting of the permit and the Building Commissioner granted it. The superintendent has since stated to the Finance Commission that if he had examined that plan he would not have approved it.

No one in this division has specialized on steel or reinforced concrete construction and there has long been a need for the services of a structural engineer. Both the head of the division and the Building Commissioner have been aware of this defect in the organization, but it has not been remedied. The Building Commissioner is authorized by law to impose such conditions as he sees fit in a permit for the structural use of reinforced concrete and, as there is no one in the plan division capable of passing upon such matters, he has until recently required the plans for all such structures to be approved, at the expense of the applicant, by an engineer selected by the commissioner out of four engineers not in the city's employ. At the present time such plans are submitted to the engineer of the bridge and ferry division of the Public Works Department, under an arrangement between the Commissioner of Public Works and the Building Commissioner, and the owners of buildings have thereby been relieved of the expense.

The division, in trying to explain to owners or builders the imperfections of plans, has wasted much time which could have been saved if such plans had been rejected with instructions to bring in proper plans prepared by

competent architects. If this had been done the builders who have employed incompetent architects, or competent architects who were paid so little that they could not afford to spend enough time on the plans to do good work, would have learned by this time that they were losing both time and money by presenting improper plans to the Building Department.

The division has also been hampered by the fact that its examination of plans has been made in a room open to the public, with no privacy, and subject to interruptions so frequent as often to prevent the concentration of mind which the study of plans requires.

The plan division is one of the most important in the department, but its actual needs, though known, have been long neglected. It should be thoroughly reorganized without unnecessary delay.

E. The Construction Division.

It is the duty of this division to examine the premises when an application is made to erect a building; to examine as often as practicable every building in process of construction or repair; to examine buildings damaged by fire, or reported or believed to be unsafe; to investigate and report upon the origin of fires, and to inspect the erection of boilers, engines and other structures.

The head of the division was appointed to his present position in 1903 under the title of supervisor of construction and his salary is \$2,500 a year. He is fifty-nine years old and has been connected since youth with the building business as carpenter, builder, and employee of the Public Buildings or the Building Department, except for about seven years, when he was employed in the Sealer of Weights and Measures Department. His practical experience has made him familiar with the building law and with methods of construction generally, but his qualifications for the supervision of the larger buildings of first-class construction are not as good as the city should require for such an important position. He should be retained

in the capacity of assistant supervisor, as hereinafter described, and one better qualified to deal with the larger and more difficult problems should be made supervisor of construction with a higher salary.

There are now eighteen inspectors of construction in this division, an increase of four having been made this year. There are fifteen whose ages range from twenty-eight to fifty-four years, and there are three who are sixty-three, sixty-seven and seventy-two years old respectively, two of them being veterans of the Civil War. The list includes architects, engineers, builders, carpenters, masons and bricklayers; some have had experience as foremen of construction and all seem qualified for their duties.

Considering the many difficulties they encounter, the inspectors seem to have been too severely criticised, although the record of the division has been marred by some building collapses which might have been prevented if certain inspectors had been more diligent in their work and more exacting with the builders. They have been too much inclined to take for granted that foundations which have been covered up in their absence have been properly constructed. Thus, if the inspector on the building at the corner of Hanover and Battery streets had insisted upon having an excavation made so that he could examine the pier upon which the column rested, he would have discovered that the pier had been improperly constructed, and he could have ordered the builder to reconstruct the pier and thus prevent the loss of life which resulted from the collapse of the pier. The weakness of the department's system in failing to require a proper examination of the land upon which a building is to be erected was also shown in this case, for the application and plans were for a new building, apparently upon a new foundation, yet there was on the premises an old foundation upon which the owner intended to build, and there was a well under that foundation, which afterwards had to be filled up. The

department now requires an adequate inspection of the land. Likewise loss of life could have been prevented in the building at 15-17 Edinboro' street if the inspector, who had repeatedly warned the builder about the support under the building, had brought the dangers of the situation to the attention of the Building Commissioner and the latter had exercised the powers given him by the building law. That law (Acts of 1907, ch. 550, sec. 4) authorizes the commissioner to give written notice of the dangerous condition of a building or structure to the owner, agent, or any other person having an interest therein. If the owner, agent or other person in interest does not make the building safe, the commissioner, under sec. 5 of said act, may secure the same or, under sec. 4, may, with written approval of the Mayor, order the building to be vacated forthwith. These sections of the statute are usually invoked in the case of completed buildings which are occupied by tenants, but there is no apparent reason why these powers may not be exercised in the case of a building in process of erection, particularly where, as in the Edinboro' street case, the lives of numbers of workmen in various parts of the building are in constant danger because of the building's insufficient supports. The commissioner was not made aware of the dangerous condition of the Edinboro' street building by the inspector, and the builder was allowed to continue the work of construction without strengthening the single support, which consisted of a piece of joist placed on top of a screw-jack. The support failed because of its insufficiency, or because it was struck by a falling plank or by a hod in the hands of a workman; the building collapsed, one man was killed and several others were seriously injured.

In this connection it should be said that, in the opinion of the engineer of the Finance Commission, who made an examination of the four buildings which collapsed near the junction of Saratoga and Bennington streets, East Boston, and of the building at 9 Charter

street which also collapsed, no blame can be attached to the building inspectors or any of the officials of the Building Department. The collapse of the four buildings in East Boston was due to an exceptionally severe gale, and the collapse of the wall of the Charter street building was due to the overloading of floors by ignorant or careless workmen, and not to any lack of care on the part of the building inspector. The loss of life in the Filene and the Gilchrist buildings was not, in the opinion of the commission, due to any fault on the part of the building inspectors.

The loose system which prevailed until recently invited shirking, but better results are now being obtained under the new and improved system of checking up the work of the inspectors. The present rules require them to begin their field work at 9 a. m., to enter in their records the time when each building is inspected, and to be at the office of the department at 4 p. m., every day except Friday and Saturday, and at 9 a. m. on Saturday, to report upon the day's work and to receive new applications. An additional check would be provided if two assistant supervisors were appointed, whose duty would be to spend practically their entire time in the field overseeing the work of the inspectors and advising them upon difficult questions of construction. If this suggestion be adopted and young and capable men be appointed hereafter to fill vacancies in the ranks of the inspectors, the present number of inspectors (eighteen) need not be increased.

All the inspectors have complained of being overworked, but with the four new inspectors appointed this year, and the aid of two assistant supervisors, as herein recommended, the work can be properly done without strain. The city should not burden the taxpayers by increasing the number of inspectors to the extent that would be required if an absolute guaranty of public safety were attempted; nor could the cost of such an attempt be assessed directly upon the owners of build-

ings, as it would arrest the development of the city. It is not the duty of the city to give such a guaranty, nor could it fulfill the duty even though the force should be increased indefinitely. Such an attempt would be as futile as an attempt to abolish crime by increasing the number of policemen, or to prevent fire by multiplying the number of firemen. The city's duty is only to provide enough qualified inspectors, under competent direction, to take all reasonable precautions against such dangers to public safety as may fairly be anticipated. In the opinion of the commission it can perform that duty by maintaining the present number of inspectors, by providing for better direction and supervision of their work, by maintaining stricter discipline, by requiring that building construction shall be in the charge of competent persons licensed after proof of their qualifications, and by prosecuting with vigor and firmness every violation of the building laws that menaces public safety.

F. The Egress Division.

It is the duty of this division to make examinations of all buildings under sec. 12, ch. 550, Acts of 1907, as amended by ch. 369, Acts of 1912, which provide that "Every building shall have, with reference to its height, condition, construction, surroundings, character of occupation and number of occupants, reasonable means of egress in case of fire, satisfactory to the commissioner, except that in all factories or workshops hereafter built or altered, of second-class construction, where ten or more persons are employed above the second floor, one exit shall consist of a fire-proof stairway enclosed in incombustible material. No building hereafter erected shall be occupied or permitted to be occupied until said means of egress have been provided in accordance with plans and drawings approved by the Building Commissioner." It is also required to make examinations under various

provisions of ch. 550 of the Acts of 1907, relating to factories, workshops, buildings used above the first floor for the storage or sale of goods, tenement houses, etc., and to inspect the physical condition of theaters and other places of public assembly as required by ch. 450 of the Acts of 1904, and ch. 550 of the Acts of 1907 and acts in amendment thereof.

The head of the division was appointed to his present position in 1910, his title is supervisor of egress, and his salary is \$2,000 a year. He is now forty-three years old and has had about twenty-five years' experience in various city offices, including the City Architect Department and the Building Department. He was an inspector in the construction division at one time and later was made one of the two supervisors of construction. His work as supervisor was entirely satisfactory to the commissioner, but he was transferred and put in charge of the egress division because of the growing importance of that work, and he has performed his duties with intelligence and discretion.

There are now seven inspectors in the egress division. The ages of six range from thirty to forty-seven years, and one, a veteran of the Civil War, is over seventy-five years of age, having been appointed to this position in 1906, by a former Building Commissioner, who knew that he had no special qualifications, and that he was almost sixty-nine years old. His appointment at such an advanced age to a position requiring much physical activity was made in flagrant violation of the city's interests. The other six inspectors seem to be qualified for their positions. Two of them were carpenters by trade, one having held a position as foreman of carpenters before he entered the city's employ; another was a bricklayer and mason by trade, having become foreman of bricklayers and masons before his employment by the city; another was an architect, and another graduated as an engineer from the Institute of Technology. The sixth inspector was a plumber by trade and was first appointed to the Building Department as a

plumbing inspector, but afterwards passed a civil service examination as building inspector, and later was transferred to the egress division.

The construction division has inspected egress in all buildings erected since August 1, 1907, the date upon which the building law went into effect.

The egress division inspects all buildings existing at the time the building law went into effect; but prior to June, 1911, its work was conducted without any definite plan. Most of the time of the inspectors was spent in investigating complaints of insufficient egress in all parts of the city, one inspector being assigned to one section one day and to another the next day. Consequently very little progress was made. Since June, 1911, however, the work has been carried on under a much better system; the city has been divided into blocks, each inspector having a definite assignment, and up to October 1, 1912, the inspection of three of the wards requiring the most attention (Wards 6, 8 and 11) had been practically completed. There will be less difficulty in inspecting most of the other wards, and if the work is prosecuted vigorously it will be completed within the next five or six years. Then the present force can be reduced in number. The supervisor of the egress division and one of his inspectors should be retained to continue the work of inspecting theaters and other places of public assembly, and two or three of the other six inspectors should be retained to examine the means of egress in buildings where changes in occupancy are made and the buildings are used for new purposes requiring additional means of egress.

The duty of the egress division with regard to the inspection of theaters, public halls and moving picture houses relates principally to an examination of the existing means of protection against fire. This work is in charge of the supervisor of the division and one inspector, another inspector being occasionally called upon to assist in the work. So far as the commission can ascertain, the work is well done. The work of the

egress division is supplemented by the inspectors of the Police and the Fire Departments and the Boston Board of Fire Underwriters, and the enforcement of the law is made easier because of the Mayor's power to withhold licenses until such changes have been made as in his opinion public safety requires.

Though the inspection of theaters, public halls and moving picture houses seems to be executed in a proper manner, there are certain defective conditions in some of them which seem to be beyond the control of the Building Department or other public authorities. The law of 1907, ch. 550, secs. 77-110, inclusive, relates to buildings erected for or converted into theaters and other places of public assembly after August 1, 1907. There seems to be adequate protection so far as new theaters and other places of public assembly are concerned, but the provisions of the act relating to theaters existing at the time the law went into effect (sec. 111) are inadequate. Though the older theaters have provided various means of improving the facilities for preserving safety, some features still remain which are a distinct menace to the public. While the commission does not suggest that the older theaters and places of public assembly be brought into conformity in all respects with the law relating to new theaters and places of public assembly, there are certain important provisions which should be made applicable to all.

G. The Plumbing Division.

This division is required to inspect all plumbing work in process of construction, alteration or repair, for which permits have been granted, and to report to the commissioner all violations of any law, ordinance, by-law, rule or regulation relating to plumbing. All plumbers have been required since 1893 (Acts of 1893, ch. 477) to be registered after an examination. The examinations are now held by a board appointed by the State Board of Health. (Acts of 1909, ch. 536.) The Board of Examiners must have as members, a plumber

of five years' continuous practical experience, a sanitary expert, and a third member who possesses the qualifications required by the State Board of Health. Unregistered plumbers are liable to a fine not exceeding \$50 for each violation of the law; and a registered plumber who violates the provisions of law is liable to said fine, and for a second offence his license may be revoked. The authority of plumbing inspectors is defined in the Acts of 1893, ch. 477, as amended by the Acts of 1894, ch. 455; and the building law (Acts of 1907, ch. 550, secs. 112-124, inclusive) prescribes the conditions under which the work of plumbing shall be carried on.

The head of the plumbing division receives a salary of \$2,000 a year, and his title is supervisor of plumbing. The present incumbent of the office entered the department in 1897 as a plumbing inspector, in 1900 was made supervisor, but in 1906 was reduced to the rank of inspector. He was again appointed supervisor in 1908, and has since held the position. He is forty-four years old and had thirteen years' experience as a plumber before he entered the department. He appears to be competent and, so far as the commission can ascertain, his work is performed efficiently.

There are nine inspectors, each of whom receives a salary of \$1,600 a year, and whose ages range from thirty-two to fifty-eight years, four being between forty and fifty, and four being between fifty and fifty-eight years old. The inspectors of plumbing are required by law to be practical plumbers of at least five years' continued practical experience, either as masters or as journeymen, during the years next preceding the dates of their appointments. All of the present inspectors seem competent.

For the purpose of plumbing inspection the city is divided into nine districts and each inspector is assigned to a district. Some inspectors complain that their districts are too large, but the commission believes that the force is sufficient to accomplish the necessary work and that no increase in the number of inspectors would

be justified. The plumbing inspectors do not have the same difficulty that the inspectors of the construction division constantly meet, namely, that caused by untrained and incompetent workmen, as all plumbers, unlike bricklayers, masons, carpenters, etc., must pass an examination and receive a license before they are permitted to engage in their trade. Another difficulty frequently encountered by the inspectors in the construction division, namely, that of having foundations and other parts of buildings covered up in their absence, does not exist in the case of the plumbing inspectors, as the building law provides that pipes or other fixtures shall not be covered or concealed from view until approved by the Building Commissioner, and that "plumbing shall not be used unless, when roughed in, the wastes, vents and back air pipes and traps are first tested by water of sufficient air pressure in the presence of an inspector, when such testing is practicable." (Acts 1907, ch. 550, sec. 116.)

H. The Gas Fitting Division.

The inspection of gas fitting in the City of Boston is performed by the Building and the Health Departments under the provisions of ch. 265 of the Acts of 1897. It is the duty of the gas fitting division of the Building Department to inspect gas fixtures when they are installed; and the consumer will not be supplied with gas by the gas company until the Building Department's inspector has approved the gas fitting work. It is the duty of the Health Department to inspect the old gas fixtures to ascertain whether they are being maintained in safe condition.

The law requires that all persons who desire to engage in or work at the business of gas fitting in the City of Boston shall pass an examination held by a Board of Examiners consisting of the Building Commissioner, the chairman of the Board of Health and a third person appointed by the Board of Health. When the

board certifies that an applicant has passed an examination, the Building Commissioner issues the license upon the payment of a fee; and if the gas fitter violates any of the provisions of the law, he is liable to a fine not exceeding \$100 for each offence and his license may be revoked by the Building Commissioner.

The present supervisor entered the department in 1897 as an inspector and in the following year was made supervisor. He is forty-eight years old and his salary is \$2,000 a year. Before he entered the city's employ he had had seventeen years' experience as a gas fitter, which qualified him for his position. No question has been raised as to his competency, but, as will be shown hereinafter, he has neglected his duties in respect to the recording of accidents due to the escape or explosion of gas, and for years he has been borrowing money from gas fitters whose work is subject to his approval or disapproval.

There are nine inspectors in this division, assigned to separate districts, at a salary of \$1,500 a year each. Their ages range from forty-four to sixty-four years, two being over sixty years old. All the inspectors have had experience which tended to qualify them for the proper discharge of their duties, having been either gas fitters or inspectors of gas companies for periods ranging from twelve to thirty-three years, and all seem competent. The districts are large and some of the inspectors think the work required of them is excessive, but there should be no difficulty, under proper management, in having the necessary work done by a force of this size.

During the entire time in which the present supervisor has had charge of the gas fitting division no serious attempt seems to have been made to ascertain the number of accidents due to the escape or explosion of gas, or the number of persons injured or killed thereby; nor has there been any adequate presentation of the record of such cases in the annual reports of the depart-

ment. For eight years after the year 1902-03 these reports omitted all reference to gas accidents, and for the greater part of these eight years the records of the department show such a small number of gas accidents as to indicate that the recording system had almost entirely broken down. Further evidence of neglect was found in the fact that twenty-two gas accidents, or one-fifth of the number shown on the department's records from 1898-99 to 1902-03, inclusive, did not appear in the annual reports.

The supervisor depended upon the newspapers for information as to such accidents, instead of finding and using more reliable sources of information. During the present year, at the suggestion of the Finance Commission, a system of co-operation has been established between the Police and Building Departments, by means of which the Building Department receives notices of gas accidents from the Police Department. The former careless methods of procuring information as to gas accidents caused wide discrepancies between the number of such accidents recorded by the gas fitting division of the Building Department and the number shown in the reports of the Massachusetts Gas and Electric Light Commission. Thus, for the period beginning January 1, 1898, and ending January 31, 1912, the records of the Gas and Electric Light Commission show that there were 920 gas accidents in Boston, in which 540 persons were killed and 693 injured; while only 230 such accidents, or one-fourth as many, are shown on the records of the Building Department. The records and reports of the Building Department are also defective in that they do not show how many persons were killed or injured in gas accident cases, the records and reports in many cases merely stating "several," without giving the number.

As previously stated, the gas accidents were omitted from the Building Department's reports in the years 1903-04 to 1910-11, inclusive, but their publication was

resumed in 1911-12 upon the suggestion of the Finance Commission. The report for 1911-12, as originally compiled, was defective, however, for it referred to only three of the thirty-four cases which were on record in the department. The Building Department report would have shown only three gas accidents, in which there were two deaths, if the commission had not learned from the Board of Health that there were many more deaths from gas in that year. The commission called attention to the discrepancy and the supervisor of the gas fitting division then incorporated in the Building Department's report, under the title "Addenda," thirty-one more cases, in eighteen of which there had been fatal results.

Complaints have been made that gas fixtures have not been properly inspected and that some of the numerous cases of asphyxiation have been due to this cause. The reports of the inspectors do not indicate that the inspections were insufficient, and it was hardly to be expected that they would, as the inspectors examined and reported upon all accidents which occurred in their own districts. At the suggestion of the Finance Commission this system was abandoned, and such examinations are now made by the supervisor of the gas fitting division. In all probability most cases of asphyxiation have been due either to carelessness or suicidal intent upon the part of the occupants of the buildings, rather than to insufficient inspection of the gas fixtures.

There have also been frequent complaints that the gas fitting division has not exercised due diligence in preventing unlicensed persons from doing the work of gas fitting. It is difficult to secure evidence against such offenders, for on the approach of the inspector they stop work, and upon being questioned state that they are merely acting as helpers for the licensed gas fitter in charge of the work. A large number of offenders undoubtedly have escaped because of the difficulty of

securing evidence against them, but the supervisor has not sought to obtain evidence against unlicensed gas fitters in a thorough and systematic manner.

I. The Elevator Division.

This division is required to inspect all freight and passenger elevators, dumb waiters, lifts, etc., to inspect tests of the safety devices on elevators, and to determine the cause of accidents resulting from the operation of elevators. The law relating to the inspection of elevators in the City of Boston (Acts of 1907, ch. 550, sec. 38) provides many safeguards against fire and accidents due to the operation of elevators, and authorizes the Building Commissioner to require additional safeguards if, in his judgment, the condition, use or surroundings of the elevator demand them. No permit for the installation of an elevator is granted until the applicant has submitted and received the approval of a plan showing the proposed location of the shaftway and the area and situation of the machine room, and no elevator may be used until it is approved in writing by the Building Commissioner.

Under these provisions the construction and use of elevators has been regulated in such a manner as to reduce the dangers from fire and accident, but the protection which the public has received has been due in large part to the frequent inspections made by casualty insurance companies and to the watchfulness of the Boston Board of Fire Underwriters. Incompetent elevator inspectors have been appointed in disregard of the right of the public to protection through proper inspection. The proper inspection of elevators requires the services of men familiar with electrical and mechanical engineering.

The supervisor of the elevator division is now sixty-seven years old. He entered the city's employ as an inspector of elevators in 1888 and was appointed supervisor in 1901. His present salary is \$1,900 a year. It appears that at the time of his entrance into the depart-

ment he did not have proper qualifications for the work, as his previous experience had been that of a sheet metal worker in the heating and ventilating business, and, according to his own statement, he had had nothing to do with elevators before his appointment. His knowledge of the work has been acquired during his twenty-four years' connection with this division.

There are now three elevator inspectors in the division, each of whom is assigned to a district. One of these inspectors, whose annual salary is \$1,200, is now sixty-six years old, having been appointed in 1906, when he was sixty years old and when he possessed no qualifications for this service. He stated that in his youth he had assisted his father in the carpenter business, but had abandoned this calling for that of a hairdresser, which he followed until about a year prior to his employment by the city. During the year prior to his appointment he had no occupation. A former Building Commissioner requested the Civil Service Commission to send down his name and, being a veteran, he was certified without an examination and was appointed by the commissioner. The appointment of a man sixty years old by one who knew he had no qualifications for the office was in direct violation of the city's interests and a menace to public safety.

One of the other inspectors was appointed in 1911; he is now thirty-nine years old and his salary is \$1,600 a year. Before he entered the city's service in 1898 he was engaged for about eleven years in various kinds of construction and electrical work, including the setting up of machinery and the installation of elevators. From 1898 to 1911 he was employed by the city as an electrical engineer in the Public Buildings Department. He seems qualified for the performance of his duties as an elevator inspector. His appointment strengthened the elevator division, as at that time it had only two inspectors, neither of whom was able to perform the necessary work in the proper manner.

The third inspector was appointed in September,

1912, at a salary of \$1,500 a year. He is forty-eight years old and seems to be qualified for the work, as he was a manufacturer of elevator gates, dumb waiters, locks and other elevator fixtures, for fifteen years prior to his appointment. He succeeded an employee, now deceased, who was appointed in 1906 when he was sixty-five years old and was physically incapacitated from following his former occupation. The circumstances under which he and the other elevator inspector who was appointed at the age of sixty years obtained their positions with the city show that the former Building Commissioner who made the appointments, and the Mayor who approved them, were entirely indifferent to the needs of this important branch of the city's service.

The reports of the Building Department for the ten years 1893-94 to 1902-03, inclusive, show that there were 231 elevator accidents in that period, in ninety-four of which there were fatal results. In the annual reports for the eight years following the year 1902-03 the record of such accidents was deliberately omitted, owing to the fact that departmental reports generally had been criticised as being too voluminous, but the omission of this record from the reports of a department of public safety was mistaken policy. The annual report for 1911-12 shows that there were fifty-two elevator accidents in that year, in thirteen of which there were fatal results. The records and reports have been so badly prepared, however, that it is impossible to find out how many persons have met death through elevator accidents in any of the years between 1893 and the present time.

J. The Existing Tenement House Division.

Sections 42-76, inclusive, of the building law (ch. 550 of the Acts of 1907) relate to tenement houses. Section 42 defines a tenement house as "any house, building, structure or portion thereof, occupied, or adapted for occupation, as a dwelling by more than

three families living independently of one another and doing their cooking upon the premises, or by more than two families above the first story so living and cooking." A family within the meaning of this section may consist of one or more persons. An "existing tenement house" is any building "erected as such or converted to such use or as altered for such use or so used before the passage of this act, and any building adapted for such use provided that a permit was issued for the erection of said building, before the passage of this act."

The existing tenement house division is required to inspect existing tenement houses with reference to lighting, ventilation and the maintenance of skylights, and also to inspect all tenement houses in respect to bakeries, fat-boiling plants or other dangerous occupations carried on therein. The provisions of law relating to the duties of the existing tenement house division specifically prescribe the conditions which must exist therein and any mechanic of intelligence should be able to perform the duty of inspection in a proper manner, but there is difficulty in determining whether certain duties with respect to existing tenement houses belong under the law to the Building Department or to the Health Department.

The chief inspector of this division is forty-six years old and receives a salary of \$1,700 a year. Before he entered the city's employ he had eighteen years' experience as a practical plumber. In 1896 he was appointed to the position of plumbing inspector in the Building Department, and in 1907 he was appointed to his present position in the existing tenement house division.

There are two other inspectors in this division. One of them, who is forty-seven years old, had seventeen years' experience as a plumber before his appointment to the Water Department as a plumber in 1900. From 1902 to 1906 he was not in the city's employ, but in 1906 he was appointed to the Building Department as a plumbing inspector, and was transferred to the existing tenement house division in 1911. His salary is

\$1,600 a year. The other inspector is thirty-eight years old and receives a salary of \$1,300 a year. He studied surveying and engineering for three years prior to his appointment in 1891 to the Surveying Department of the city. He remained in the Surveying Department until 1899, when he was transferred to the Building Department, where he was assigned to the duty of drawing plans for fire escapes. In 1909 he was assigned to the existing tenement house division.

The division has completed the inspection of existing tenement houses in Wards 1 to 15, inclusive, except as to parts of Wards 9 and 12, and has completed part of Ward 18. The chief inspector and his subordinates seem competent, the work is laid out on a definite plan, and apparently it is being performed in an efficient manner.

3. THE ENFORCEMENT OF THE BUILDING LAW.

There is a class of builders which, with little or no regard for public safety, takes advantage of every opportunity to save money by the use of low priced, inferior materials and the employment of low paid, unskillful workmen. Their building operations need constant watching, for they do not hesitate to violate the law whenever they think it profitable to do so. If the Building Department had proceeded against them with the intention of extirpating them unless they lived up to the law, and the Law Department had cooperated with the Building Department in the same spirit, this class of builders would now either be obeying the law or be out of business. Neither the Building Department nor the Law Department, however, has exercised its full powers to compel this class to live up to the building laws.

The failure to enforce the law has not been due to any weakness in the law itself, for the authority given is broad enough to satisfy all requirements. Thus, under sec. 127 of the building law (ch. 550 of the Acts of 1907) every structure and part thereof and

appurtenant thereto is required to be maintained in such repair as not to be dangerous; and the owner may be held responsible for the maintenance of all buildings and structures. Under sec. 132 anyone who unlawfully builds, alters or maintains any structure or any part thereof, or otherwise violates any of the provisions of the act, may be punished by a fine not exceeding \$500. Under sec. 129 courts having jurisdiction in equity are given broad powers to compel compliance with the act, including the power to restrain the unlawful construction or use of buildings, and to order the removal of buildings or other structures unlawfully existing. Under sec. 130 the Municipal Court of the City of Boston, concurrently with the Superior Court, is given jurisdiction throughout the city of prosecutions and proceedings at law under the provisions of the act, and also of all provisions of law relating to plumbing and gas fitting; and under sec. 131 it is provided that the courts, at the request of either party, may advance cases so that they may be determined with as little delay as possible. These powers are broad enough to enable the Building Department and the Law Department to compel compliance with the law.

Notwithstanding the amplitude of these powers, many violations of the building law have gone unpunished. Practically every official of the Building Department lays on the Law Department the blame for the non-enforcement of the building law. On the other hand, the officers of the Law Department maintain that the Building Department, to free itself from criticism, has flooded the Law Department with trivial cases, in many of which the causes of complaint could have been removed by the Building Department if it had used due diligence. The Finance Commission believes that both departments have contributed to the failure to enforce the building laws.

The former Corporation Counsel of the city maintained that it was not his duty to prosecute criminal cases in the lower courts, and as a rule his assistants

preferred not to enter the lower courts; consequently very few criminal prosecutions have been brought against persons who violated the building law. Likewise, the equity courts have not been invoked as often as they should have been, this failure having been due to the fact that the officers of the Law Department have regarded other parts of their work as more important than building law cases, and have felt that the latter class of cases should be attended to only in their spare time. The Building Department has also been responsible in part for the failure to enforce the law, for it has frequently waited for years after the violation of law before referring the case to the Law Department.

From 1895 to 1911 no records were kept in the Law Department showing the number or disposition of cases referred to it by the Building Department. The assistant corporation counsel who had these matters in charge from 1895 to 1907 relied upon his memory, instead of keeping a record book or card index which would enable him to tell at any time how many cases had been referred to him and how many had been disposed of. The assistant corporation counsel who had charge of such cases from January, 1907, to January, 1911, seems to have followed the same system as his predecessor, for the Finance Commission has been unable to find any record book or card index of building law cases, and other officials in the Law Department state that they know of no such record or card index having been kept by him. A better system was inaugurated on or about January 18, 1911, by another officer in the Law Department, who was given charge of these cases after the decease of his predecessor. He has kept a card system which enables him to tell the status of the cases referred to him.

The records of the Building Department show that from the year 1898 up to the 18th of January, 1911, there were 359 cases referred to the Law Department for prosecution which, up to August 22, 1912, had not been

closed on the Building Department's books. It is impossible now, owing to the absence of records in the Law Department, to determine what the Law Department has done in connection with these cases. Only one case has been found among the number in which the law has been complied with and this case has not been closed on the Building Department's books. It may be that an examination of the premises in each case would show that there are other cases in which the law has been complied with but which have not been closed on the books of the Building Department. The premises in each of these cases should be examined for this purpose. The Finance Commission believes it is probable, however, that in most of these cases nothing has been done and that, in consequence of this neglect, many buildings exist which have been erected or are being maintained in violation of the law.

The record of building law cases referred to the Law Department between January 18, 1911, and November 1, 1912, indicates that there has been more activity in this period than there formerly was in the prosecution of such cases. Apparently none of the cases referred to the Law Department in this period have been neglected. It seems that 483 cases were referred to the Law Department, of which 219 have been closed by the removal of the cause of complaint, and that 254 are pending in the courts or awaiting the action which the owners of the buildings will take in response to the letters or oral demands of the Law Department. Unfortunately, however, the records of the Law Department and the Building Department are incomplete as to these cases. The records of the Law Department do not account at all for two of the cases referred to it, and eight other cases are recorded as closed which should not be closed, as the records of the Building Department show that the causes of complaint have not been removed. The Building Department records also are defective, as four of the cases which were not

closed on its books should have been closed, for the Building Commissioner wrote to the Law Department in each of these cases, stating that the cause of complaint had been removed.

The routine methods of handling complaints in the office of the Building Department have been slow and cumbersome. After the inspector files a complaint in the office a notice is sent to the owner of the building, and, if the law is not complied with, a second and sometimes a third notice is sent before the case is referred to the Law Department. This is an unnecessary delay. As already stated, it has often happened that the complaint has not been referred to the Law Department until several years after the date when the inspector filed the complaint in the Building Department. In many of such cases the Law Department has lost time by reason of changes of ownership during the period in which the Building Department has delayed action.

The records of the Building Department respecting complaints are not complete. When an inspector files a complaint with the supervisor and the latter approves it, it is sent to the Building Commissioner and, if he approves it, the complaint is recorded and a notice is sent to the person who has violated the law. But if either the supervisor or the commissioner disapproves of the complaint nothing further is done with it. In such cases there is no record in the department to show that the inspector has made a complaint and that the supervisor or commissioner has not approved it. This is a serious gap in a record system for it gives the supervisor and the commissioner opportunities to suppress complaints without fear of publicity.

A serious discrepancy was found by the commission between the records of complaints outstanding on the books of the Building Department and the original documents containing the complaints. The records are made up from the original documents and without this supporting data it is impossible to check up the complaints recorded on the books. The records showed

that from 1902 to 1911, inclusive, there were 1,316 complaints pending, but on the day of this commission's examination (August 13, 1912) the cabinet containing the original documents of complaint held by actual count only 168, or 1,148 less than the record book showed. The clerk of the department could give no explanation of the shortage, except that everybody in the office had access to such documents and that possibly some of them had been lost in moving the department's effects from the Old Court House to its temporary quarters on Summer street.

The Finance Commission believes that hereafter the Building Department and the Law Department will cooperate better than they have in the past in enforcing the building laws. The present Corporation Counsel has stated his willingness to prosecute in the criminal courts every violation of the law that is brought to his attention. This is a wholesome change of policy and it should be productive of good results. The Building Department should change its methods of dealing with complaints and instead of sending two, and in many cases three, notices before a case is referred to the Law Department it should have one of its constables serve notice promptly upon the owner, and if within a reasonable time the cause of complaint is not removed the case should be referred to the Law Department for prosecution.

4. IMPROPER PRACTICES.

Any city department which, like the Building Department, is constantly forcing people to live up to the law and thereby compelling them to increase their expenditures, is bound to be criticised. Most of the rumors of graft in the Building Department have been set afloat by an unscrupulous class of builders and doubtless many of the rumors have had no basis in fact. Some of these rumors have proved to be well grounded, however, and there are strong reasons for believing that still others are true. Unfortunately it is difficult

to obtain satisfactory evidence of bribery. It is committed secretly, not in broad daylight or in the presence of witnesses. No one knows of the transaction but the two principals, who, for prudential reasons, rarely confess. Unfortunately, also, when in 1907 one of the inspectors of the Building Department was convicted of accepting a gratuity, he was placed on probation instead of being sentenced to imprisonment, as he should have been, in order to deter others from committing similar offences.

A. The Financial Dealings of the Supervisor of the Gas Fitting Division.

It appears that the supervisor of the gas fitting division has been in serious financial difficulties for several years. He has borrowed money from professional money lenders, from gas fitters and from his own inspectors. He frequently assigned his salary to money lenders, but he got the creditors to agree not to record such assignments, fearing that he would be discharged if the assignments were made public. Last spring he made arrangements to have his debts paid off by a gas fitter who was to become his sole creditor, but after this arrangement had been completed he began to borrow money from other persons, and last August he filed a voluntary petition in bankruptcy. His schedules showed liabilities amounting to \$3,014 and no assets. Eight persons who have been connected with the building or gas fitting business appear in the bankruptcy schedules as creditors for amounts ranging from \$90 to \$573, the total of the eight claims, being \$1,268. Another creditor, whose brother is in the gas fitting business, has a claim for \$500 on a second mortgage of property which he did not even take the pains to see before he lent the money.

There is little doubt that the gas fitters who lent money to the supervisor expected favors of some kind. After an inspector of the gas fitting division had refused to approve the gas fitting in a building at the North End, the gas fitter telephoned to the supervisor and the

latter came down and met him on the work. The gas fitter has stated to the Finance Commission that he then gave to the supervisor \$3 and two cigars, but the supervisor denied this, although he admitted that this gas fitter and his brother had on other occasions made gifts to him of wine, turkey and crackers. In another case the commission found that a lender either expected favors or thought he was purchasing peace. The treasurer of the Welsbach Company of New England lent the supervisor \$100, of which \$10 was subsequently repaid. He stated to the commission that he wanted to keep friendly with the supervisor, and when asked what his reason was, said, "Well, in Boston you have to use Boston keys on fixtures. Your key might not be quite right, there might be a shade of thickness. Now, you understand, I would not want him to pass a key that was not right, but sometimes when the inspector knows you he will not question trivial things. For that reason — and on our jobbing — I did not want to be called on a number of times — sometimes inspectors can make themselves very fussy and troublesome if they want to; they can make trouble for you, you understand, over something that would pass all right, but that may vary a shade in the manufacture." When asked whether the supervisor would allow certain keys to be used which did not conform to the law, he said, "The law calls for a certain fixture, and some of these inspectors take exception to the least little thing, but the fact that I knew the supervisor made me more inclined to loan him the money. He came over to my place in a friendly kind of way and he could, if he wanted to, make me some trouble."

It also appears that about three years ago the supervisor obtained from the Boston Consolidated Gas Company an automobile for which, an officer of the gas company stated to the Finance Commission, the supervisor agreed to pay \$125. The supervisor stated to the Finance Commission that this transaction was a sale and that he intended to pay the \$125, but he has never

paid any part of the price, although he stated that he has since sold the automobile for \$50; and he did not include the \$125 as a debt due to the gas company in the schedule of liabilities which he filed in the bankruptcy court. The officer of the gas company stated to the commission that the gas company desired to be on friendly terms with the supervisor, saying, "Of course, if we are not friendly with a man in that department he might make it disagreeable."

The numerous instances found by the commission in which gas fitters lent considerable sums to the supervisor, sometimes without a note, and at all times without security, indicate clearly that the purpose of the lenders was the maintenance of friendly relations with the supervisor; and the supervisor must have realized that these sums would not have been given to him unless he had the power to disapprove the work of the lenders. There seems to have been no intention on the part of the lenders to press for payment.

The supervisor has also borrowed money from one of his inspectors. The inspector testified that at one time he indorsed the supervisor's note for \$250; that he indorsed another note for \$100; and that he loaned him \$50 at one time and \$40 on another occasion. He stated that he declined to lend the supervisor any more money, believing that he was "financially right up against it." When asked if the supervisor had tried to get any money from him since that time he answered, "No; he hardly speaks to me since I told him I wouldn't loan him any more; he is very distant to me." This shows the demoralizing effect of such transactions. The supervisor also asked a clerk in the Building Department to lend him money, and the clerk got a friend to discount the supervisor's note. When the note came due, the clerk was obliged to pay it and the supervisor owes him a balance on it still.

The financial transactions of the supervisor have become well known to persons engaged in the trade of gas fitting, as well as to the inspectors in his own divi-

sion. Such transactions necessarily have a demoralizing effect upon the public service. The supervisor has lost the confidence of many persons in the gas fitting business and of his own inspectors as well. As one of his inspectors said to the Finance Commission, "We have not got his confidence and he has not got ours, that is the whole story." Under these circumstances he cannot render the efficient service which both the law and public safety require, and for the good of the service he should be dismissed from the department.

B. Violations of the Law by Certain Employees of the Building Department.

Some of the employees of the department have engaged in private business, contrary to law. The building law provides that "No officer connected with the department shall engage in any other business or be interested in the doing of work or the furnishing of material for the construction, repair or maintenance of any building or in the making of plans or of specifications therefor, unless he is the owner of the building or a member of the Board of Appeal." (Sec. 1, ch. 550, of the Acts of 1907.)

A former inspector in the plumbing division had a financial interest in a certain plumbing device which he had patented, and which was being sold during his connection with the Building Department. Another inspector, still in the service of the department, secured a patent last year for a bath trap and sold it to a concern in Boston, which pays him a royalty. Another inspector has for years made surveys and drawn plans of lots for persons who paid him at a lower rate than that usually paid to surveyors. All three of these officials, being inspectors, and therefore, within the meaning of the law, "officers," have violated the law. One of them is no longer in the city's service, but the two who are in the service should be forbidden to continue their private business under pain of discharge. They should not be dismissed without being given this

opportunity, as it appears that they have never been told by competent authority that they were "officers," and therefore not permitted to carry on private business.

- A former clerk in the plan division had for years done architect's work for private clients while employed in the Building Department. Another inspector, now head of the egress division, drew plans for private clients while he was in the plan division, and one of the present members of the plan division has also drawn plans for such clients and has not yet given up this practice. These employees were not inspectors when they drew such plans and they may not have been "officers" within the meaning of the law, but such practices should be stopped by the Building Commissioner. There is reason to believe that the persons who employed them did so because they were attached to the plan division of the Building Department, and because it was believed that it would help them in getting their plans approved.

There is considerable doubt as to how many of the persons employed by the Building Department are "officers" within the meaning of the statute and therefore are prohibited from doing private business, and how many are "employees" and therefore not prohibited from engaging in private business. The doing of private business, however, has a direct tendency to demoralize the department, whether it is done by officers or employees, and the law should be amended so that there will be no distinction between these two classes of public servants.

5. ANNUAL REPORTS.

The duty of compiling data and arranging it for publication in the annual reports of the Building Department rests upon the clerk of the department. Much time is devoted to the preparation of the annual reports and they contain many excellent features. Thus the first three pages of the report for the year 1911-12 contain clear and succinct statements of the

principal operations of the department. The powers and duties of the department are set forth with clearness and brevity, and the statistics showing the estimates, appropriations and expenditures of the department are presented in proper form.

A. Unnecessary or Defective Material.

In the reports of this department, however, like those of most of the other departments previously examined by the commission, there are unnecessary features which should be eliminated. Thus, instead of printing sixteen pages of statistical tables, pages 10-22, inclusive, and 31-33, inclusive, showing (1) by months the number of permits issued for various purposes, the examinations made for various purposes, the reports filed, the notices issued, the plans approved or disapproved, the number of elevators examined and the number of buildings in which egress has been provided; (2) by months and wards the number of permits granted for various purposes, and (3) by months and wards the number and estimated cost of the various classes of buildings completed during the year,—every practical purpose would be served if only five pages of statistical tables were published, containing the following data classified by wards, namely, one page showing the number of examinations made for various purposes; three pages showing the number and estimated cost of each of the three classes of buildings which have been completed during the year, and one page showing the number of buildings in which egress has been provided. All the data not contained in these five pages is set forth adequately in the text in the first two pages of the report. The Finance Commission has taken up this matter with the clerk of the department and he believes with the commission that the report could be simplified and improved by the elimination of much of its statistical data. He found that the department's reports prior to 1878, when he took office, contained substantially all the matter

which is herein criticised as unnecessary, and he said he followed the custom, assuming that such data would be interesting to many persons. He admits, however, that only a few persons are interested and that it would be cheaper and better to furnish such information from the records of the department instead of incumbering the annual reports with it.

The data in pages 47-50, inclusive, of the report for 1911-12, seems of sufficient importance to be included, but it has been presented in a manner which confuses instead of enlightening the reader. Some of the tables do not check up with each other, or with the text in the heading, or with other tables printed elsewhere in the report. The clerk of the department stated that some of the discrepancies were due to the fact that the tables on pages 47-50, inclusive, related to the calendar year 1911, while the tables on page 18 related to the fiscal year 1911-12. Most readers, however, would be misled by assuming that both tables were for the fiscal year 1911-12, and there is no good reason why the data in question should not relate to the fiscal year in both parts of the report. There were other discrepancies in these tables which could not be accounted for by the difference in the fiscal and calendar years and for these discrepancies the clerk was unable to give any explanation.

Between pages 50-51 of the report for 1911-12 four charts and four statistical tables have been inserted. These charts and tables are on long sheets which constitute about one-fifth of the entire bulk of the report. They make it clumsy to handle, and unnecessarily increase the expenses of the department, as they contain no matters of general interest which are not sufficiently set forth in other parts of the report. The clerk of the department stated that such charts and tables were first printed in the report one year ago, some of the data having been requested by officials of the United States Government. The Finance Commission has taken this matter up with the clerk of the depart-

ment and he has agreed to eliminate such charts and tables hereafter from the annual reports and to furnish from the records of the department such data as the United States officials require.

B. Statements of Accidents.

The statutes do not specifically require the department to publish in its annual reports statements relating to building collapses, elevator accidents, accidents due to the escape or explosion of gas, and fires resulting in death. The Revised Ordinances of 1898, however, require a statement of "the acts and doings" of the department, and as the duties of the department include the inspection of buildings, elevators, and gas fixtures, and the investigation of the origin of fires, such matters should have been presented in the reports of the Building Department, as it is an important branch of the general system by which public safety is preserved. Prior to the year 1911-12, however, there were no statements in the annual reports relating to building collapses. The statements relating to accidents due to gas or the operation of elevators were, as previously stated, discontinued after the year 1902-03, and were not resumed until the year 1911-12. The reports of years prior to 1911-12 contained statistics relating to fires, but a full statement of the facts in the case of fires resulting in death was not printed in any of the annual reports before the year 1911-12.

In the last annual report there are thirty pages containing statements of various accidents caused by the operation of elevators, by the escape of gas, by the collapse of buildings or parts thereof and by fires. The various kinds of accidents are printed without any definite arrangement and do not always follow the chronological order. In many cases neither the names of the owners nor of the occupants of the buildings appear. In some cases only the last name of the person injured is given, and in many cases no name is given; in other cases it does not appear how many

were injured, the record merely stating "several"; and in still other cases it is not clear whether the injury was fatal. In no case does it appear that the accident was due either in whole or in part to the negligence of the department's inspectors, though in at least one case known to the commission careless inspection was a contributing factor. The foregoing clearly shows that the summary of accidents was prepared hastily and with little care.

There is a legitimate public interest in the proper presentation of such material and the reports in future should set forth the various accidents, briefly yet in sufficient detail, giving the location of the premises, the nature of the business carried on therein, and the names and number of the persons injured or killed. The various accidents should be grouped under their proper headings, and the statements should be arranged in chronological order. Whenever the accident is caused by a defect in an elevator or a gas fixture, or in the construction of a building, the report should contain the date of the last inspection by the department and the name of the inspector.

The printing in the report of 1911-12 of the facts in relation to building collapses and other accidents of various kinds was due to a suggestion made to the department by the Finance Commission. The printing of the thirty-one gas accidents set forth under the title "Addenda," pages 171-178, inclusive, nineteen of which were fatal, was also done upon the suggestion of the Finance Commission after its discovery of a discrepancy between the records of the Building and the Health Departments. The printing of the matter under the title "Errata," on page 178, is also due to the Finance Commission, which checked up the report and discovered thirteen errors. The commission also discovered ten errors in the report for the year 1910-11. Such mistakes are, for the most part, inexcusable and they seriously affect the reliability of the reports.

These criticisms of the annual reports of the department clearly indicate a necessity for the exercise of far greater care in the preparation of future reports than has been shown in the past.

6. SUMMARY.

The foregoing review shows that the defects in the administration of the Building Department have not been due to imperfections in the law, for it provides ample authority for the enforcement of its provisions; nor can its defects be attributed to an insufficient number of employees, for a private corporation charged with the duty of administering the building law could have done the work properly with a force of the same size. The defects are traceable to imperfections in the organization, to the lack of proper direction, to the absence of proper discipline, and to the influence of politics in the appointment and retention of certain employees. Politics, however, seems to have had less influence during the administration of the present Building Commissioner than it had under his predecessors. The system now existing is far better than that which existed when the Finance Commission's investigation began, and at that time it was better than it was when the present Building Commissioner first assumed charge of the department. The commission believes that if certain necessary changes herein recommended be made, the Building Commissioner be given a free hand, and strict discipline be enforced, the department will be administered in a proper manner hereafter.

IV. DEFECTS IN THE BUILDING LAW.

In the course of its investigation the commission has heard many criticisms of the present building laws, and has received various suggestions as to their amendment, but the consensus of opinion of the representative body of architects and builders who stated their views to the commission is that the building law has worked

well as a whole and that a general revision is unnecessary at the present time. There is, however, a widespread belief that the law should be amended as quickly as possible in certain particulars, so as to reduce the fire risks that now exist. It has been urged with great emphasis that the present building limits of the city should be extended and that the erection of wooden three-flat houses in any part of the city should hereafter be prohibited. The Finance Commission, however, need not express any opinion on this subject as these questions, among others, are now being studied, not only in their application to Boston but to all other cities and towns within the metropolitan district, by a special commission of five members appointed by the Governor, under the Resolves of 1912, ch. 103, which provides for an investigation of the loss of life and property by fire, the causes of fires, the improvements in means for their prevention, and the fire hazard in the metropolitan district; and also for a report, with recommendations for legislation, to the next General Court.

A. PLACES OF PUBLIC ASSEMBLY.

The Finance Commission's investigation of the conditions existing in some of the theaters and other places of public amusement in Boston has shown that the building law should, in the interests of public safety, be made to apply equally to old and new theaters and other places of public amusement in the following particulars:

1. In every such place built in a block, not on a corner, there should be two open courts or passageways extending from the proscenium line to the line of the street, as now prescribed for new theaters in sec. 79, ch. 550, Acts of 1907.

2. The entrance should not be more than one step above the level of the sidewalk of the main street and the stage not more than 5 feet above said level, as prescribed for new theaters in sec. 82 of said act.

3. Every theater and place of public assembly

having a stage with scenery or other combustible material thereon should have a fireproof proscenium wall, as prescribed for new theaters by sec. 83 of said act.

4. All aisles should be of the width prescribed by sec. 88 of said act.

5. Inclines in levels of floors should be of the grade prescribed by sec. 89 of said act.

6. The aggregate capacity of the foyers, lobbies, corridors or passages on each floor or gallery should be sufficient to contain the whole number to be accommodated on such floor or gallery, as prescribed in sec. 90 of said act.

7. Each stage should have not less than two exit doors, as prescribed in sec. 91 of said act.

8. No mirrors should be placed so as to give the appearance of a doorway, exit, hallway or corridor, nor should there be any false doors or windows, as prohibited by sec. 94 of said act.

9. The size and location of exits should be as prescribed in secs. 95, 96 and 97 of said act.

If these amendments of the law are made, some expense will be caused to some of the proprietors of such places and considerable expense to others, but these considerations should be regarded as subordinate to the safety of the public.

B. TENEMENT HOUSES.

That part of the building law which relates to tenement houses (secs. 42-76, inclusive, of ch. 550 of the Acts of 1907) was submitted to the Legislature after a special commission on the revision of the building laws had prepared and submitted what they deemed to be a complete building code. But, as the result of a compromise, made on the last day of the session, the provisions as to tenement houses were embodied in the building law which was finally passed by the Legislature. Under such circumstances defective legislation was almost inevitable. In some respects the provisions as to tenement houses seem to be unnecessary. Thus,

for example, the provisions as to egress in tenement houses could have been omitted, as sec. 12 of the building law gives the Building Commissioner authority to require reasonable means of egress satisfactory to him in all dwellings. It also seems that the provisions as to water-closets in tenement houses could have been dispensed with, as the said sec. 12 gives the Board of Health authority to require such number of water-closets in any habitation as they deem necessary, and sec. 128 of the law gives that board general authority to make such regulations as to the construction of water-closets, not inconsistent with other laws, as they deem proper. There are other provisions respecting the lighting and ventilation of tenement houses which result in duplication by the Health Department of inspections made by the Building Department, and *vice versa*, and there are other provisions relating to tenement houses which leave it doubtful as to which of the two departments has jurisdiction.

The Finance Commission does not suggest that there should be less efficient inspection of tenement houses than is made now; on the contrary, the inspection should be as thorough as possible, but the law as to tenement houses should be amended so as to eliminate provisions as to matters fully covered in other parts of the building law, and also to avoid unnecessary duplication of work, by clearly defining the jurisdiction and duties of the Building and the Health Departments. The Building Commissioner should prepare the necessary amendments so that, if possible, they may be submitted to the incoming Legislature.

C. LICENSING OF BUILDERS.

A recognition of the fact that faulty construction is due generally to the carelessness or incompetency of builders led to the passage by the Legislature of 1912 of an act authorizing the City Council of Boston by ordinance to prescribe the qualifications of persons

having charge or control of the construction, alteration, removal or tearing down of buildings or structures in Boston, the means of determining such qualifications and the terms and conditions upon which permits for such work may be issued by the Building Commissioner. (Acts of 1912, ch. 713.) After the passage of the act the Corporation Counsel submitted the draft of an ordinance to the City Council, and other drafts covering the same subject were submitted by the Building Commissioner, by the Master Builders' Association and by the Chamber of Commerce. These various drafts have been considered by the City Council, but as yet none of them has been adopted. The Finance Commission believes that a suitable ordinance should be decided upon and adopted as soon as possible.

V. RECOMMENDATIONS.

1. THE PLAN DIVISION.

That the head of the plan division receive an annual salary of \$3,500, and that there be appointed to this position a construction engineer familiar with the theory and practice of modern steel and reinforced concrete construction, and with sufficient technical training to become expert in passing upon new problems as they arise in the evolution of the art of building.

That the present members of the plan division be retained at their present salaries, and that the present supervisor of plans be made first assistant to the new supervisor.

That before any plans be approved a complete report be filed with the plan division showing the condition of the land on which the building is to be erected.

That the plan division waste no time hereafter in assisting persons who have filed defective plans to perfect such plans, but that they be returned with instructions to bring in proper plans, thus compelling such persons to employ competent architects.

That the Building Department's quarters in the City Hall Annex be so arranged that there shall be one room, not open to the public, in which plans may be studied without interruption.

2. THE CONSTRUCTION DIVISION.

That a supervisor of construction be appointed at a salary of \$3,000 a year, who shall have a thorough knowledge of modern methods of construction, gained through actual experience as a contractor or building superintendent, and who shall be temperamentally fitted to deal properly with his subordinates as well as with owners and builders.

That the present supervisor, at his present salary, be made an assistant to the new supervisor, and that another assistant supervisor be appointed at an annual salary of \$2,500 who possesses qualifications similar to those of the new supervisor.

That the supervisor of construction and his two assistants spend as much time as possible in the field, overseeing the work of the inspectors and assisting them when necessary by advice on difficult or disputed points of construction.

That on discovery of any change in a plan which may affect public safety, the inspector report the facts at once to the Building Commissioner, and that the latter order the work to be stopped until amended plans are filed and approved.

That whenever the supports of any building in process of construction are believed by an inspector to be insufficient he should notify the commissioner at once of the dangerous condition; that the latter immediately give written notice of such dangerous condition to the owner, agent or other person having an interest in said building; and that if immediate steps to secure the same are not taken, the commissioner, with the approval of the Mayor, should order all workmen and others to vacate the building forthwith.

3. THE GAS FITTING DIVISION.

That the present supervisor be removed and a competent person be appointed in his place.

That greater care be taken hereafter in discovering and recording cases in which accidents have occurred through the escape or explosion of gas.

That greater vigilance be exercised hereafter in detecting persons engaged in gas fitting without licenses, and that upon detection such persons be vigorously prosecuted.

4. APPOINTMENTS.

That no appointment be hereafter made until the persons certified by the Civil Service Commission have been personally examined by the Building Commissioner with reference to their past experience, their qualifications and their character; and that the Building Commissioner request the Civil Service Commission not to certify for the position of inspector any person over forty years of age.

5. ENFORCEMENT OF THE BUILDING LAW.

That the Law Department prosecute in the lower courts persons found violating the building law, and in case of conviction for any violation affecting public safety request the court to impose the full penalty.

That the Law Department notify the Building Department not less than once in every three months of the status of all cases referred to it for prosecution, and that the Building Department immediately notify the Law Department in writing whenever the cause of complaint has been removed in any case previously referred to the Law Department.

That if the officer of the Law Department who is intrusted with such cases is not able to dispose of them speedily, the Corporation Counsel assign another officer or officers of the Law Department to assist in the prosecution of such cases.

That the Law Department report to the Building Department all agreements made by owners with the officials of the Law Department, to remove causes of complaint, and that the Building Commissioner instruct his inspectors to make examinations for the purpose of ascertaining whether such agreements have been kept. The failures to keep such agreements should be reported to the Law Department and prosecutions should follow.

That the Building Commissioner require his inspectors to make a special examination of the premises in all cases referred to the Law Department prior to January, 1911, which still remain unclosed on the Building Department's books.

That a record be kept in the Building Department of all complaints which have been disapproved by the Building Commissioner, and that hereafter no complaints made by the inspectors be finally disallowed by the supervisor, but that such disallowance in each case be subject to the approval of the Building Commissioner, and that a record be made and kept of each complaint so disallowed.

That the present system under which several notices of violations are sent to the owner of a building be abandoned, and that hereafter the Building Department, upon receipt of a complaint by an inspector, have a constable serve notice promptly upon the owner, and if steps are not taken to remove the cause of complaint within a reasonable time, not exceeding two weeks, the case be referred to the Law Department for prosecution.

6. IMPROPER PRACTICES.

That the Building Commissioner establish a rule, making it a cause for discharge when any inspector is found to have solicited, or borrowed, or to have received, money or other gratuity from any person engaged in plumbing, gas fitting, or building operations of any kind, or from any person who owns or maintains any

building which such inspector is, or may be at some future time, under a duty to inspect.

That any officer or employee of the Building Department who accepts a gratuity or bribe from any person whose building or other structure, or work, or plan, or application for a permit, he is inspecting, supervising or examining, be prosecuted; and that the Law Department recommend a sentence of imprisonment in every such case.

That the Building Commissioner establish a rule, making it a cause of discharge, when any person in the employ of the Building Department, whether legally classified as officer or employee, is found to be engaged in other business or to be interested in the doing of work or the furnishing of material for the construction, repair or maintenance of any building, or the making of plans or of specifications therefor, unless he is the owner of the building; and that all officers or employees of the Building Department who have a pecuniary interest in the sale of any device used in connection with plumbing, gas fitting, or other operation connected with the construction of buildings, be required immediately to dispose of such interest and be ordered not to acquire such an interest hereafter under pain of discharge; and that all officers or employees be likewise forbidden under pain of discharge to make plans or surveys of building lots.

7. ANNUAL REPORTS.

That the annual reports of the Building Department be simplified by the elimination of unnecessary data as hereinbefore suggested.

That all cases of accidents due to the maintenance or operation of elevators, or to the escape or explosion of gas, or to the collapse of buildings in whole or in part, and of fires resulting in death, be published hereafter in the department's annual reports; that such statements be printed in separate groups under proper headings and in chronological order; that the names

and number of persons injured or killed be stated; that the location of the premises and the nature of the business carried on therein also be given; and that wherever the accident is caused by a defect in an elevator or a gas fixture or in the construction of a building, the report should contain the date of the last inspection by the department and the name of the inspector.

8. CHANGES IN THE BUILDING LAW.

That the building law should be amended so as to apply equally to old and new theaters and other places of public amusement in the particulars hereinbefore enumerated.

That a suitable ordinance requiring all persons in charge of building operations to be licensed after proof of their qualifications be passed by the City Council and approved by the Mayor.

That the Building Commissioner make a study of the sections of the building law relating to tenement houses and prepare amendments which will better define the jurisdiction of the Health and the Building Departments and eliminate all provisions which are unnecessary or which now cause a duplication of work by said departments.

That sec. 1, ch. 550, of the Acts of 1907, be amended so as to make the present prohibition against officers of the Building Department engaging in other business, etc., extend to all persons in the employ of the Building Department.

Respectfully submitted,

THE FINANCE COMMISSION,

by JOHN A. SULLIVAN,

Chairman.

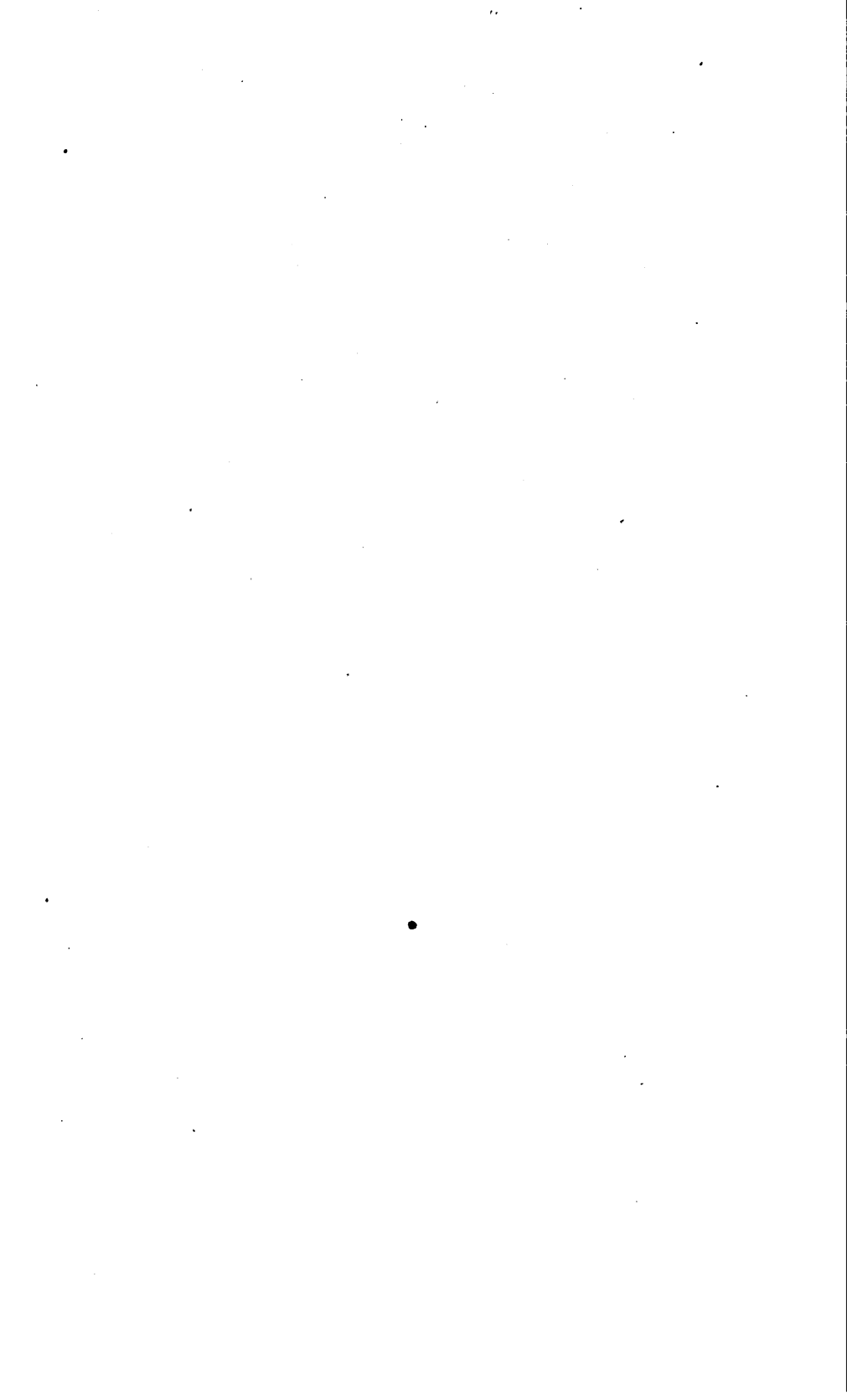












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